Notice of Allowability	Application No.	Applicant(s)	
	10/653,797	DRESCHER, JOSEPH D.	
	Examiner	Art Unit	
	James M. Hewitt	3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *the replies filed 3/16/05 & 6/6/05*.

2. ☒ The allowed claim(s) is/are *1, 4-8, 10-12, 18, 20, 21, 15-17 and 14 which will appear as 1-16 respectively in the patent*.

3. ☒ The drawings filed on *09 December 2003* are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

JAMES M. HEWITT
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with John Carlson on 8/15/05.

The application has been amended as follows:

The following version of the claims replaces all prior versions:

1. (Currently Amended) A coupling comprising:

a first member having an axial end with an outer circumferential surface having an outer first diameter, a first interlocking member extending radially outward from the outer circumferential surface, the first member including a body portion axially spaced from the first interlocking member, the body portion having an outer diameter greater than the outer first diameter of the outer circumferential surface, wherein the first interlocking member is a portion of an L-shaped protrusion from the outer circumferential surface;

a second member having an axial end with an inner circumferential surface having an inner second diameter, a second interlocking member extending radially

inward from the inner circumferential surface, wherein the second interlocking member is a portion of an L-shaped protrusion from the inner circumferential surface;

at least one of the first and second members including a keyway;

the outer circumferential surface insertable into the inner circumferential surface such that the first interlocking member is inserted past the second interlocking member, the first member and second member then being rotatable relative to one another to a locked angular orientation in which the first interlocking member is interlocked with the second interlocking member to prevent relative axial movement of the first member relative and the second member, a key being insertable into the keyway when the first and second members are in the locked angular orientation to prevent rotation of the first member and second member relative to one another.

2. (Cancelled)

3. (Cancelled)

4. (Previously Presented) The coupling of claim 1 wherein the first interlocking member is one of a plurality of first interlocking members positioned radially outward from the outer circumferential surface of the first member and wherein the second interlocking member is one of a plurality of second interlocking members positioned radially inward from the inner circumferential surface of the second member.

5. (Original) The coupling of claim 4 wherein the at least one of the first and second members includes a plurality of the keyways into which a plurality of keys are insertable to prevent relative rotation of the first member and second member.

6. (Original) The coupling of claim 4 wherein the plurality of first interlocking members are circumferentially distributed along the outer circumferential surface and the plurality of second interlocking members are circumferentially distributed along the inner circumferential surface.

7. (Original) The coupling of claim 4 wherein the plurality of first interlocking members are axially spaced from one another on the outer circumferential surface and the plurality of second interlocking members are axially spaced from one another on the inner circumferential surface.

8. (Currently Amended) The coupling of claim 1 wherein the keyway is defined adjacent to and abuts at least one of the first interlocking member and the second interlocking member to prevent relative rotation of the first and second members.

9. (Cancelled)

10. (Currently Amended) The coupling of claim ~~9~~ 1 wherein the outer diameter of the body portion of the first member is substantially equal to and substantially aligned with an outer circumferential surface of the axial end of the second member.

11. (Original) The coupling of claim 1 wherein the axial end of the first member includes an axially outer annular surface and wherein the second member includes an annular shoulder surface axially inward of the second interlocking member, the outer annular surface of the first member abutting and forming a gas-tight seal against the annular shoulder surface of the second member when the first and second members are in the locked angular orientation.

12. (Original) The coupling of claim 1 wherein at least one of the first member and the second member further includes a stop member adjacent the interlocking member, the stop member abutting the interlocking member on the other of the first member and the second member to limit relative rotation between the first member and the second member.

13. (Cancelled)

14. (Currently Amended) A method for connecting a first member to a second member including the steps of:

a) aligning radially outwardly extending first interlocking members on an outer circumference of an axial end of a first member between radially inwardly extending second interlocking members on an inner circumference of an axial end of a second member;

b) inserting the axial end of the first member into the axial end of the second member;

c) imparting relative rotation between the first member and second member until the first and second members are in a locked orientation in which the first interlocking members are interlocked with the second interlocking members and until at least one of the first interlocking members or the second interlocking members contacts a stop member adjacent at least one of the other of the first interlocking members or the second interlocking members to limit relative rotation of the first member and the second member; and

d) after said step c), inserting at least one key into an outer surface of one of the first member and the second member and adjacent a portion of each of the first and second members to selectively prevent relative rotation between the first and second members, such that the at least one key is substantially flush with an adjacent outer surface of the first member that is axially spaced from the second member.

15. (Currently Amended) A coupling comprising:

a first member having an axial end with an outer circumferential surface having an outer first diameter less than an outer diameter of a body portion circumferential

surface of the first member adjacent the outer circumferential surface, a first interlocking member extending radially outward from the outer circumferential surface and axially spaced from the body portion circumferential surface;

a second member having an axial end with an inner circumferential surface having an inner second diameter greater than an inner diameter of the second member adjacent the inner circumferential surface, a second interlocking member extending radially inward from the inner circumferential surface, at least one of the first member and the second member further including a stop member adjacent the interlocking member;

at least one of the first and second members including a keyway; and

the outer circumferential surface insertable into the inner circumferential surface such that the first interlocking member is inserted past the second interlocking member, the first member and second member then being rotatable relative to one another to a locked angular orientation in which the first interlocking member is interlocked with the second interlocking member to prevent relative axial movement of the first member relative and the second member, the stop member abutting the interlocking member on the other of the first member and the second member to limit relative rotation between the first member and the second member, a key being insertable into the keyway when the first and second members are in the locked angular orientation to prevent rotation of the first member and second member relative to one another.

16. (Currently Amended) The coupling of claim 15 wherein a radially outer surface of the first interlocking member abuts the inner circumferential surface of the second member in the locked angular orientation.

17. (Previously Presented) The coupling of claim 16 wherein the key is insertable at least partially between the outer circumferential surface and the inner circumferential surface.

18. (Currently Amended) The coupling of claim 1 wherein a radially outer surface of the first interlocking member abuts the inner circumferential surface of the second member in the locked angular orientation.

19. (Cancelled)

20. (Currently Amended) The coupling of claim [[19]] 18 wherein the first interlocking member includes an undercut complementary to an undercut [[on the second interlocking member]] of the L-shaped protrusion from the inner circumferential surface.

21. (Previously Presented) The coupling of claim 1 wherein the key is insertable at least partially between the outer circumferential surface and the inner circumferential surface.

REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance:

The prior art of record does not disclose, singly or in combination, a coupling as claimed in detail in claims 1 and 15, or a method of connecting a first member to a second member as claimed in detail in claim 14.

The closest prior art includes Durina (US 5,188,399) and Waters (US 2,165,163).

Regarding claim 1, Durina fails to teach or fairly suggest the limitation "wherein the second interlocking member is a portion of an L-shaped protrusion from the inner circumferential surface". And Waters fails to teach or fairly suggest the limitation "the first member including a body portion axially spaced from the first interlocking member, the body portion having an outer diameter greater than the outer first diameter of the outer circumferential surface".

Regarding claim 14, Durina fails to teach or fairly suggest the step of "imparting relative rotation between the first member and second member...until at least one of the first interlocking members or the second interlocking members contacts a stop member adjacent at least one of the other of the first interlocking members or the second interlocking members to limit relative rotation of the first member and the second member". And Waters fails to teach or fairly suggest the step of "inserting at least one key into an outer surface of one of the first member and the second member...such that the at least one key is substantially flush with an adjacent outer surface of the first member that is axially spaced from the second member".

Regarding claim 15, Durina fails to teach or fairly suggest the limitation "the stop member abutting the interlocking member on the other of the first member and the second member to limit relative rotation between the first member and the second member". And Waters fails to teach or fairly suggest the limitation "a first member having an axial end with an outer circumferential surface having an outer first diameter less than an outer diameter of a body portion circumferential surface of the first member adjacent the outer circumferential surface, a first interlocking member extending radially outward from the outer circumferential surface and axially spaced from the body portion circumferential surface".

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M. Hewitt whose telephone number is 571-272-7084.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Stodola can be reached on 571-272-7087. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JAMES M. HEWITT
PRIMARY EXAMINER